

## **PROFESSIONAL PAPERS WRITTEN & SUBMITTED:**

**On the Atmospheres of Objects in the Kuiper Belt.** S.A. Stern and L.M. Trafton. In *Trans-Neptunian Objects* (Eds: A. Barrucci, D. Cruikshank, and A. Morbidelli). Space Science Series, 2006.

**The New Horizons Pluto-Kuiper Belt Mission: An Overview with Context.** S.A. Stern. Space Science Reviews, submitted, 2006.

**Ralph: A Visible/Infrared Imager for the New Horizons Pluto/Kuiper Belt Mission.** Dennis Reuter, Alan Stern, John Scherrer, Donald Jennings, James Baer, John Hanley, Lisa Hardaway, Allen Lunsford, Stuart McMuldroch, Jeffrey Moore, Cathy Olkin, Robert Parize<sup>4</sup>, Harold Reitsma, Derek Sabatke, John Spencer, John Stone, Henry Throop<sup>2</sup>, Jeffrey Van Cleve<sup>4</sup>, Eddie Weigle<sup>3</sup> and Leslie Young. Space Science Reviews, submitted, 2006.

**First Observational Constraints on Rings in the Pluto System.** Stern, S.A., and A. Steffl. *The Astronomical Journal*, in press, 2007.

**ALICE—The Rosetta Ultraviolet Imaging Spectrograph.** Stern, S.A., Slater, D.C., Scherrer, J.R., Stone, J.S., Versteeg, M., A’Hearn, M.F., Bertaux, J.L., Fledman, P.D., Festou, M.C., Parker, J. Wm., and O.H.W. Sigmund. Space Science Reviews, in press, 2007.

**Ultraviolet Spectroscopy of Comet 9P/Tempel 1 with Alice/Rosetta During the Deep Impact.** P.D. Feldman, S.A. Stern, A.J. Steffl, J.Wm. Parker, D.C. Slater, M.F. A’Hearn, J.-L. Bertaux, and M.C. Festou, *Icarus*, in press, 2006.

**ALICE: The Ultraviolet Imaging Spectrograph Aboard the New Horizons Pluto-Kuiper Belt Mission.** S.A. Stern, D.C. Slater, J. Scherrer, J. Stone, G. Dirks, M. Versteeg, M. Davis, G.R. Gladstone, J.Wm. Parker, L.A. Young, and G.H.W. Sigmund. *Space Sci. Revs*, in press, 2007.

**Pluto, Charon, and the Kuiper Belt Objects.** Stern, S.A., Parker, J.P., and Olkin, C.O. In *Treatise in Geophysics: Planets and Moons* (T. Spohn, ed.), in press, 2007.

**The Positions, Colors, and Photometric Variability of Pluto’s Small Satellites from HST Observations in 2005-2006.** S.A. Stern, M.J. Mutchler, H.A. Weaver, and A.J. Steffl. *The Astronomical Journal*, submitted, 2006.

**Discovery of Auroral Activity on Mars.** J.-L. Bertaux, F. Leblanc, Olivier Witasse, Eric Quemerais, Jean Lilensten, S.A.. Stern, B. Sandel and Oleg Korablev, *Science*, submitted, 2005.

**First Surface Maps of 1 Ceres: The Innermost Icy Planet** Jian-Yang Li, Lucy A. McFadden, Joel Wm. Parker, Eliot F. Young, Peter C. Thomas Christopher T. Russell, S. Alan Stern, and Mark V. Sykes. *Science*, submitted, 2005.

**Ceres is an Equilibrium Ellipsoid with Central Mass Condensation.** Peter Thomas, J. Wm. Parker, L.A. McFadden, C.T. Russell, S.A. Stern, M.V. Sykes, and E.F. Young. *Nature*, in press, 2005.

**Improved Constraints on Additional Satellites of Pluto.** Steffl, A.J., Mutchler, M., Weaver, H.A., Stern S.A., Durda, D.D., Terrell, D., Young, E.F., Young, L.A., Buie, M.W., and Spencer, J.R. *Astronomical Journal*, submitted, 2005.

**The Discovery of Two New Satellites of Pluto.** Weaver, H.A., Stern, S.A., Mutchler, M., Steffl, A.J., Buie, M.W., Merline, W.J., Spencer, J.R., Young, E.F., and Young, L.A., *Nature*, in press, 2006.

**Characteristics and Origin of the Quadruple System at Pluto.** Stern, S.A., Weaver, H.A., , Steffl, A.J., Mutchler, M., Merline, W.J., Buie, M.W., Young, E.F., and Young, L.A., , and Spencer, J.R., *Nature*, in press, 2006.

**Orbits and Photometry of Pluto's Satellites: Charon, S/2005 P1, and S2005 P2.** Buie, M.W., Grundy, W., Young, E.F., Young, L.A., and Stern, S.A., *The Astronomical Journal*, submitted, 2005.

**Ceres: High-Resolution Imaging with HST and the Determination of Physical Properties.** J.Wm. Parker, L.A. McFadden, C.T. Russell, S.A. Stern. M.V. Sykes, P.C. Thomas, and E.F. Young. *COSPAR*, 2004.

**SPICAM: Studying the Global Structure and Composition of the Mars Atmosphere.** J.-L. Bertaux, D. Fonteyn, O. Korablev, E. Dimtarelis, J.P. Dubois, A. Hauchecorne, F. LeFevre, M. Cabane, P. Rannon, A.C. Lvasseur-Regourd, G. Cernogera, E. Quemerais, C. Hermans, G. Kockarts, C. Lippens, N. De Maziere, D. Moreau, C. Muller, E. Neels, P.C. Simon, F. Forget, F. Hourdin, O. Talagrand, V.I. Moroz, A. Rodin, B. Sandel, and A. Stern. *Mars Express: The Scientific Payload*. ESA SP-1240, 2004.

**Regarding the Accretion of 2003 VB<sub>12</sub> (Sedna) and Like Bodies in Distant Heliocentric Orbits.** S.A. Stern. *The Astronomical Journal*, in press, Jan. 2005.

**The U.S. Rosetta Project: NASA's Contribution to the International Rosetta Mission** C. Alexander, S. Gulkis, M. Frerking, M. Janssen, D. Holmes A. Stern, J. Parker, J. Scherrer, J. Burch, R. Goldstein, S. Fussilier, *IEEE Proceedings*, in press, 2005.

**First Observation of Nightglow in the Upper Atmosphere of Mars: The NO Bands in UV and Implications for Atmospheric Transport.** J.-L. Bertaux, F. Leblanc, S.

Perrier, E.Quemerai, O. Korablev, E.Dimarellis<sup>1</sup>, A. Reberac, F. Forget, P.C. Simon, S.A. Stern, B. Sandel and the SPICAM team. *Science*, in press, 2005.

A Not So Perfect Deep Freeze: Physical Processes Affecting Cometary Nuclei in the Oort Cloud and Kuiper Belt. Nature, published 07 August 2003.

Collisions, Accretion, and Erosion in the Kuiper Belt. S.A. Stern and S. Kenyon. Comptes Rendus (French PNAS). November, 2003.

New Horizons: The First Reconnaissance Mission to Bodies in the Kuiper Belt. S.A. Stern and J.R. Spencer. Special Issue of Earth, Moon, and Planets (J. Davies, ed.) Kluwer Academic Publishers. In press, 2004.

Finding KBO Flyby Targets for New Horizons. J.R. Spencer, M.W. Buie, L.A. Young, Y. Guo, and S.A. Stern. Special Issue of Earth, Moon, & Planets (J. Davies, ed.) Kluwer Academic Publishers. In press, 2004.

NASA's New Horizons Pluto-Kuiper Belt Mission. S.A. Stern & A. Cheng, EOS. 2002.

Evidence for a Collisional Mechanism Affecting Kuiper Belt Object Colors. S.A. Stern, *The Astronomical Journal*, October, 2002.

Implications Regarding the Energetics of Kuiper Belt Satellite Formation. S.A. Stern, *The Astronomical Journal*, October, 2002.

X-ray emissions from comet McNaught-Hartley (C/1999 T1). V.A. Krasnopolsky, D.J. Christian, V. Kharchenko, A. Dalgarno, S.J. Wolk, C.M. Lisse, and S.A. Stern. *Icarus*, December, 2002.

The Main Sequence Disk We Call The Kuiper Belt. S.A. Stern. Invited chapter for the *Astronomical Society of the Pacific, Conference Series Volume* (D. Backman and L. Caroff, eds.). In press, 2003.

On the Putative Eccentricity of Charon's Orbit. S.A. Stern, W. Bottke, and H.F. Levison, *The Astronomical Journal*. In press, February, 2003.

Delayed Gratification Habitable Zones (DGHZs): When Deep Outer Solar System Regions Become Balmy During Post-Main Sequence Stellar Evolution. S.A. Stern. *Astrobiology*. Submitted, October 2002.

**POPULAR ARTICLES WRITTEN:**

**The Discovery of Pluto's New Moons. *Astronomy Magazine*, 2006.**

**New Horizons at Jupiter. *Astronomy Magazine*, 2007.**

**Pluto and Charon. *Encyclopedia of the Solar System* (Weissman, McFadden, & Johnson, eds.)**

**Discovering Pluto's New Moons. *Astronomy Magazine*. Submitted, December, 2005.**

**"A Not So Perfect Deep Freeze: Cometary Evolution in the Oort Cloud and Kuiper Belt." *Astronomy Magazine*. Delivered January 2004.**

**"New Horizons: First Mission to the Last Planet." *Astronomy Magazine*. Delivered November 2004.**

**The Third Zone: Our Solar System's Kuiper Belt. *Sky & Telescope*. Submitted, March 2003.**

**On The Trail of the Vulcanoids. *Astronomy Magazine*. Submitted, July 2003.**

**Habitable Zones Around Red Giant Stars. *Astronomy Magazine*. Submitted, November, 2003.**

**Journey to the Farthest Planet, *Scientific American*, May 2002.**

### **TECHNICAL PRESENTATIONS GIVEN:**

**New Horizons: Reconnoitering Pluto and the Kuiper Belt. LASP Seminar, University of Colorado, Boulder, CO. 16 February 2006.**

**Mission PI Lessons. PI Lessons Learned Workshop, Washington, D.C. 11 Apr 2006.**

**Pluto: The First and Best Known KBO. Trans Neptunian Objects Dynamical and Physical properties, Catania, Italy, 06 July 2006.**

**Pluto and KBOs: Objects at the Rim of the Solar System. Invited Pardee Talk, Geological Society of America. 22 Oct 2006.**

**Lyman Alpha Mapping Project. SwRI Division 15 Seminar. 25 January 2005.**

**New Horizons 2. Outer Planets Assessment Group meeting. Bethesda, Md, 10 Feb 2005.**

**New Horizons Mission Overview. DOE Idaho National Labs. Idaho Springs, Idaho, 18 April 2005.**

**Lyman Alpha Mapping Project. Planetary Science Institute. Tucson, AZ, 20 April 2005.**

**New Horizons Mission Overview. Planetary Science Institute. Tucson, AZ, 21 April 2005.**

**New Horizons Mission Overview. Dept. of Physics and Astronomy, Phoenix, AZ. 22 April 2005.**

**New Horizons Mission Overview. NASA Marshall Space Flight Center, Decatur, AL, 24 May 2005.**

**New Horizons Mission Overview. Boeing Planet, Decatur, AL, 27 May 2005.**

**New Horizons: First Mission to the Last Planet. NASA Goddard Space Flight Center Symposium. 03 June 2005.**

**New Horizons 2. Outer Planets Assessment Group meeting. Boulder, CO, 10 Feb 2005.**

**New Horizons: First Mission to the Last Planet. University of Texas Aerospace Engineering Seminar. 01 July 2005.**

**New Horizons: First Mission to the Last Planet. Northern Maine University. 18 July 2005.**

**New Horizons: First Mission to the Last Planet. Lockheed-Martin Valley Forge RTG Fabrication Facility, Valley Forge, PA. 02 Feb 2004.**

**New Horizons Mission Overview. NASA Planetary Astronomy MOWG. Boulder, CO. 14 April 2004.**

**Detecting Exposed Water-Frost in Permanently Shadowed Areas of the Moon. American Astronomical Society, Denver, CO. 31 May 2004.**

**New Horizons II Overview. New Horizons II Uranus Community Workshop. Pasadena, CA. 21 June 2004.**

**New Horizons Overview. NASA Outer Planets Forum. Pasadena, CA. 21 June 2004.**

**New Horizons: First Mission to the Last Planet, and Beyond. International Nuclear and Space Radiation Effects Conference. Valley Forge, PA. 22 July 2004.**

**The Rosetta Mission and the SwRI Alice Spectrometer. Dept. seminar, SwRI Department of Space Studies. Boulder, CO. 03 Aug 2004.**

**Discovery of the Martian UV Nightglow with SPICAM on Mars Express; Detection of the Nightglow. AAS/DPS Meeting. 11 Nov 2004.**

**The New Horizons Pluto-Kuiper Belt Mission. Ball Aerospace. Boulder, CO 07 March 2003.**

**The New Horizons Pluto-Kuiper Belt Mission. NASA IV&V Facility. Fairmont, W. Va. 03 June 2003.**

**The New Horizons Pluto-Kuiper Belt Mission. Space Telescope Science Institute. Boulder, CO 09 July 2003.**

**The New Horizons: The First Mission to the Last Planet. Ball Aerospace. Boulder, CO 08 August 2003.**

**The New Horizons: The First Mission to the Last Planet. Subaru Telescope. Hilo, HI 26 August 2003.**

**Comparison of the Heliocentric and Absolute Magnitude Distributions of KBOs with Satellites to Other KBOs, AAS/DPS Meeting, Monterey, CA, 06 Sep 2003.**

**The Alice-Rosetta Investigation at 67P/Churumnov-Gerasimenko. Rosetta meeting. Capri, Italy, 15 Oct 2003.**

**New Horizons Mission Overview and PI Perspective on New Frontiers. COMPLEX meeting. Irvine, CA, 17 Nov 2003.**

**The New Horizons Mission. SwRI Division 15 seminar, San Antonio, TX. 09 Jan 2002.**

**The New Horizons Mission: No More Secrets. SwRI-Boulder DoSS seminar, Boulder, CO. 15 Jan 2002.**

**The New Horizons Mission Science. NMSU Astronomy Department seminar, Las Cruces, NM. 05 Feb 2002.**

**The New Horizons Mission Science and Project Overview. NASA Headquarters OSS seminar, Washington, DC. 11 Feb 2002.**

**Kuiper Belt Review. Gillett Memorial Workshop on Extra-Solar Disks. Tucson, AZ, 12 Apr 2002.**

**The New Horizons Mission to Pluto and the Kuiper Belt. From Here to Pluto-Charon in 2015, SwRI Workshop, Boulder, CO, 20 May 2002.**

**Potential Cassini Contributions to the New Horizon Mission. From Here to Pluto-Charon in 2015, SwRI Workshop, Boulder, CO, 21 May 2002.**

**New Horizons: A Reconnaissance Expedition to Pluto-Charon and The Kuiper Belt. NASA/GSFC Engineering Seminar, Greenbelt, MD, 23 Sep 2002.**

**Modeling and Observational Constraints on the Putative Vulcanoid Population of Our Solar System, Department of Astronomy, American Museum of Natural History, New York, NY, 06 Oct 2002.**

**New Horizons. DPS Meeting, Birmingham, AL, 09 Oct 2002.**

**Delayed Gratification Habitable Zones (DGHZs): When Deep Outer Solar System Regions Become Balmy During Post-Main Sequence Stellar Evolution. DPS Meeting, Birmingham, AL, 10 Oct 2002.**

**POPULAR PRESENTATIONS GIVEN:**

**First Mission to the Last Planet. Littleton, CO School Foundation. 17 Mar 2006.**

**First Mission to the Last Planet. Boulder Civil Air Patrol. 30 Mar 2006.**

**First Mission to the Last Planet. Denver Cub Scouts. 13 June 2006.**

**NASA's Pluto-Kuiper Belt Mission. CU Space Policy Class, 29 Sep 2006.**

**NASA's Pluto-Kuiper Belt Mission. AIAA Colorado, 19 Oct 2006.**

**First Mission to the Last Planet. Texas Space Grant Consortium. 02 Nov 2006.**

**Exploring the Frontier of Our Solar System. Dallas, TX. 13 Nov 2006.**

**The Third Zone. Aurora Community College, Denver CO. 12 Dec 2006**

**What Does a Space Scientist Do? Career Day presentation to Platte Middle School, 17 March 2005, Boulder, Colorado.**

**New Horizons: A PI-Led Mission. University of Colorado APS-320 Class. 01 April 2005. Boulder, CO.**

**The New Horizons Mission. Fairview High School. Idaho Springs, Idaho, 18 April 2005.**

**New Horizons: NASA's Pluto Mission. Idaho Museum of Science. Idaho Springs, Idaho, 18 April 2005.**

**New Horizons: NASA's Pluto Mission. Main Public Library. Presque Isle, Maine, 19 July 2005.**

**New Horizons Overview. Presentation to the Education and Public Outreach Team. Laurel, MD, 07 Jan 2004.**

**New Horizons: The First Mission to the Last Planet. NASA IV&V Facility, Fairmont, W. Va, 02 June 2003.**

**New Horizons: The First Mission to the Last Planet. University of Colorado, APS Astronomy 301 class, Boulder, CO, 05 December 2003.**

**Why go to Pluto? National Space Society, Denver Chapter. 04 Jan 2002.**

**NASA's Pluto Mission. NMSU Evening Colloquium, Las Cruces, NM. 04 Feb 2002.**

**The New Horizons Mission to Pluto and the Kuiper Belt. Science Writers Association for the Rocky Mountains, Boulder, CO. 09 May 2002.**

**New Horizons Mission to Pluto and the Kuiper Belt: A NASA Mission to New Frontiers. Hayden Planetarium, American Museum of Natural History, New York, NY, 06 Oct 2002.**

**New Horizons Mission to Pluto and the Kuiper Belt: A NASA Mission to New Frontiers. Colorado Astronomy Day, Denver Museum of Science and Nature, Denver, CO, 12 Oct 2002.**

**SERVICE & COMMITTEE ACTIVITIES:**

Script advisor, *Earth & Sky* radio program (1999-)

Advisory Board, U. Colorado, Astrophysical & Planetary Sciences Dept. (2002-2006)

Advisory Board, *Astronomy Magazine* (2002-2006)

Member, AAAS Astronomy Section Steering Committee (2003-2007).

**Member, Scientific Organizing Committee, “Trans Neptunian Objects: dynamical and physico-chemical properties,” Catania, Italy, 7-21 July 2006.**

**Member, NAS SSB Committee on Science Goals and Priorities for Lunar Exploration (2006)**

**Chair, DPS Federal Relations Subcommittee (2006)**

**Elected Vice-Chair, DPS (2006-2007); Chair (2007-2008)**

**Appointed to NASA Advisory Council (2006).**

**BOOK WORK:**

**The Universe Revealed, T. Snow and S.A. Stern, introductory college astronomy text, Norton, 2008, under contract, 85% complete.**

**Pluto and Charon: Ice Worlds on the Ragged Edge of the Solar System, revised, second edition, Wiley, 2005.**

**HONORS:**

**Awarded the National Space Club’s Von Braun Aeronautics Engineer Award 2006,**

**Robert E. Dennard Scholar, St. Mark’s School, Dallas, Texas**